

Chester Square Park Green Space

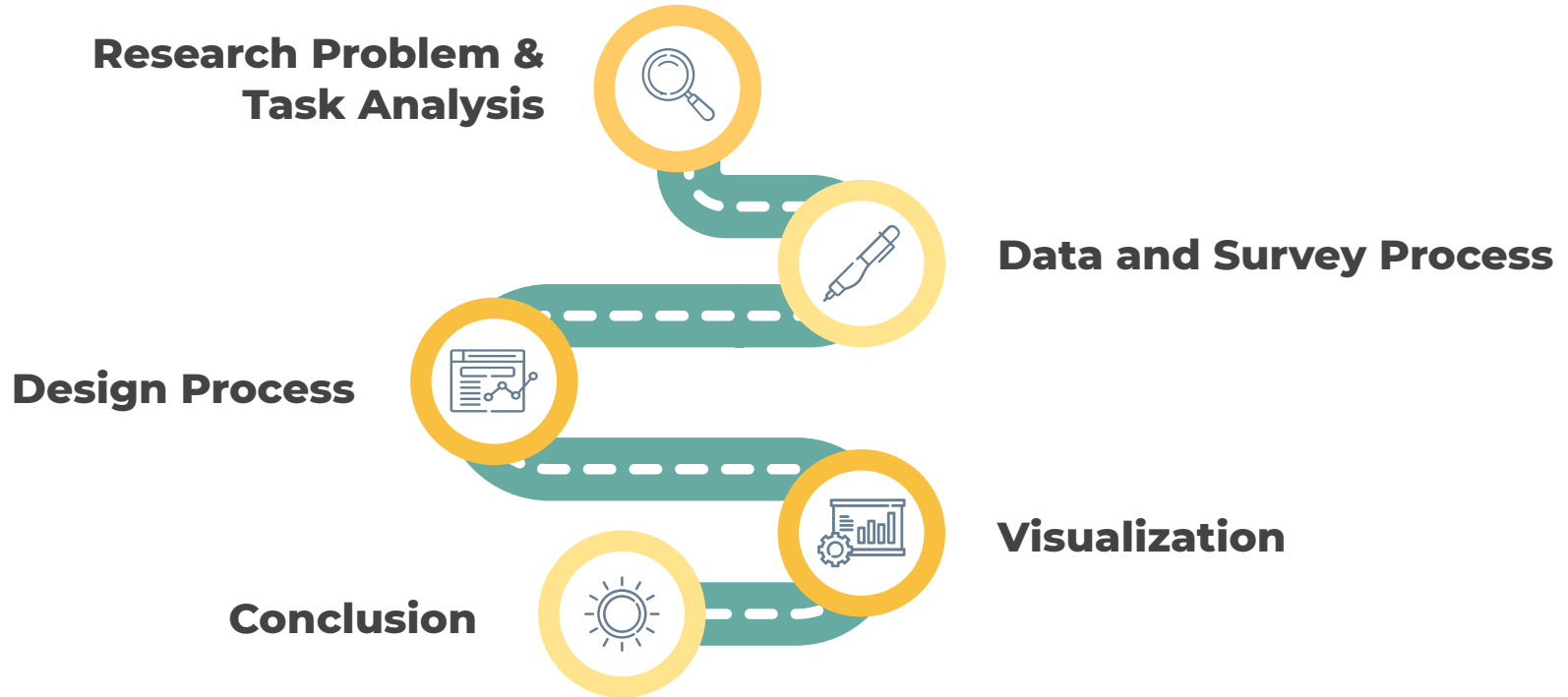
Team 5

Sarah Chou, Megan Lau, Hannah Marrow

DS4200 Fall 2019 — Professor Cody Dunne
Northeastern University



Agenda



OUR RESEARCH PROBLEM

In such a limited space, what is the best, most effective way to utilize the park to improve the neighborhood?



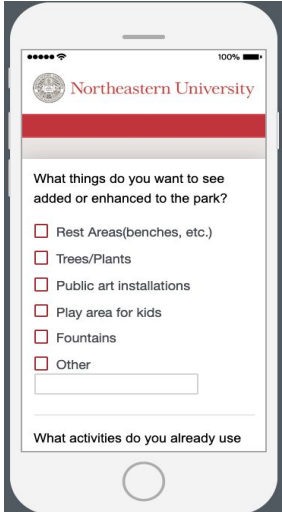
Task Analysis

High Level:
summarize

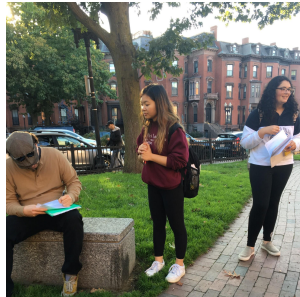
Mid Level:
explore

Low Level:
identify

Data and Survey Process



Smartphone mockup of a survey form from Northeastern University. The form asks: "What things do you want to see added or enhanced to the park?" and lists options: Rest Areas(benches, etc.), Trees/Plants, Public art installations, Play area for kids, Fountains, and Other. Below this, it asks: "What activities do you already use".



01

Draft Sample

Questions were sent to Carol for approval and later fixed with edits

02

Qualtrics Online Survey

Based on a Marketing Research class, an online survey was created in Qualtrics. Carol distributed the survey link to the Chester Park and Friends of Chester Square Park email list.

03

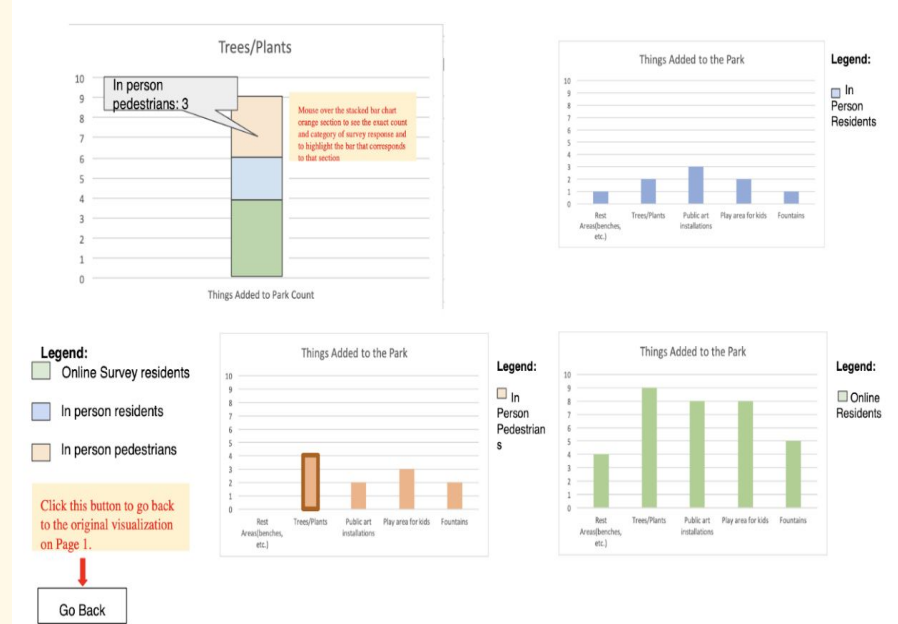
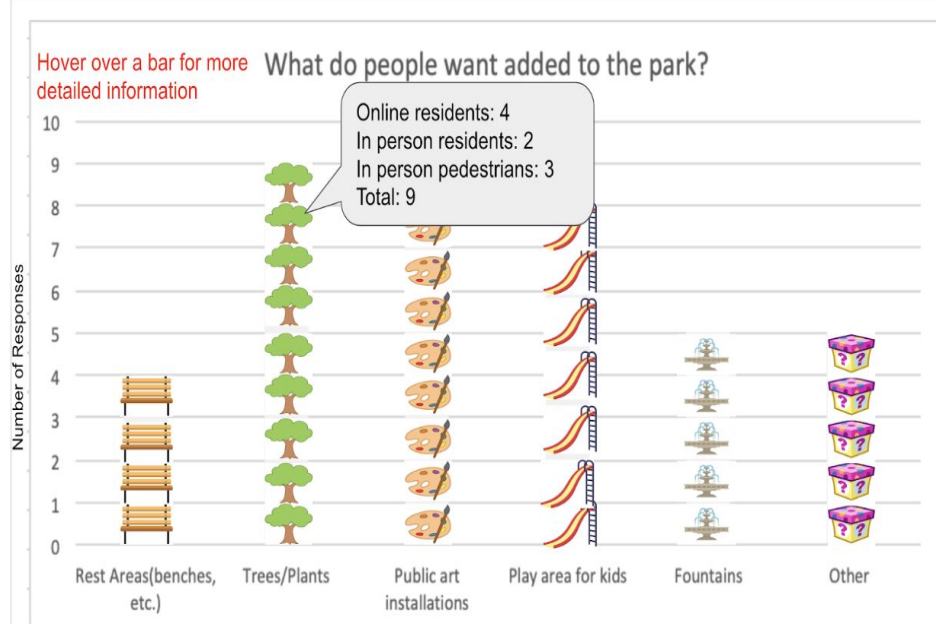
In Person Survey

We printed out paper versions of the surveys and distributed to residents and pedestrians in person.



Sample Size
N = 27

Design Process





Visualization



A stylized illustration of a landscape. In the center is a teal house with a dark teal roof, a dark teal arched doorway, and three dark teal rectangular windows. To the left of the house are several trees: a large yellow tree, a tall teal tree, and a smaller yellow tree. To the right of the house are more trees: a yellow tree, a large yellow tree, and a small teal tree. The background is white.

What Enhancements and Additions Do People Want in Chester Park?

Isograph

Visually stimulating, each unit represents a response

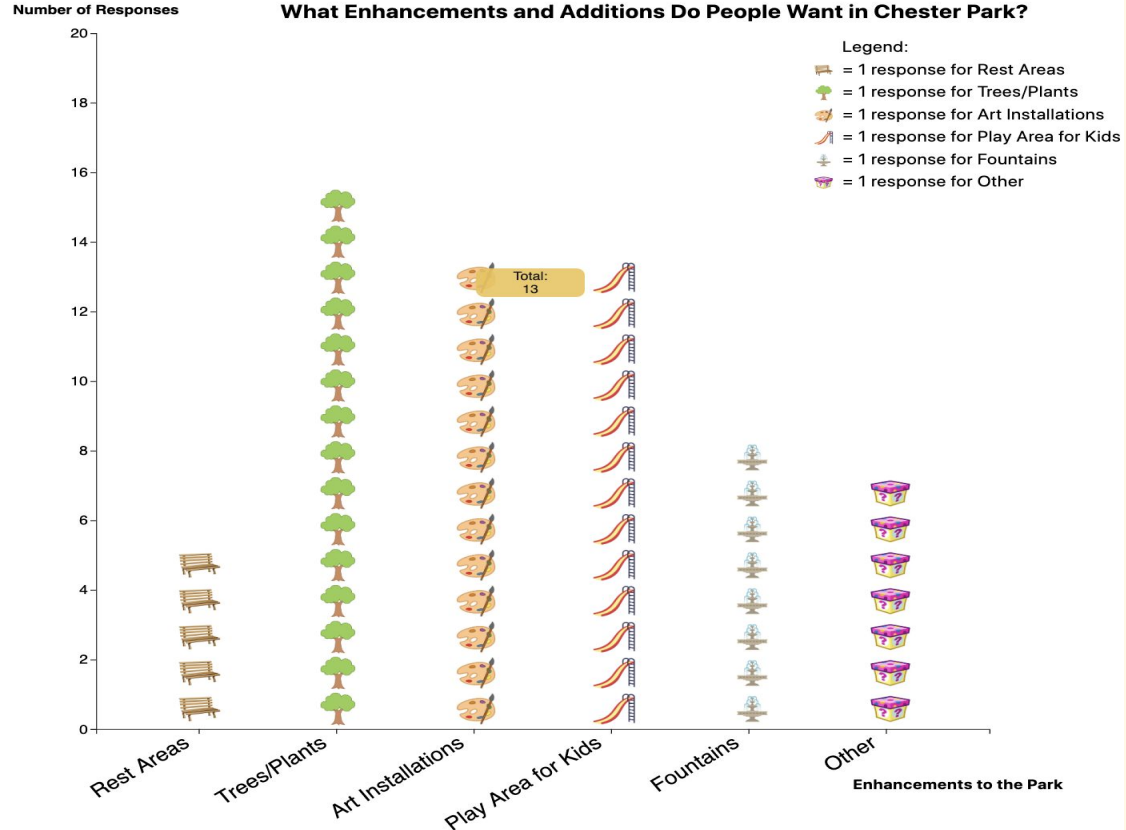


Legend

Discussed with Carol which categories to include.



Contains an “Other” section for open ended responses



Response Counts for Different Survey Groups

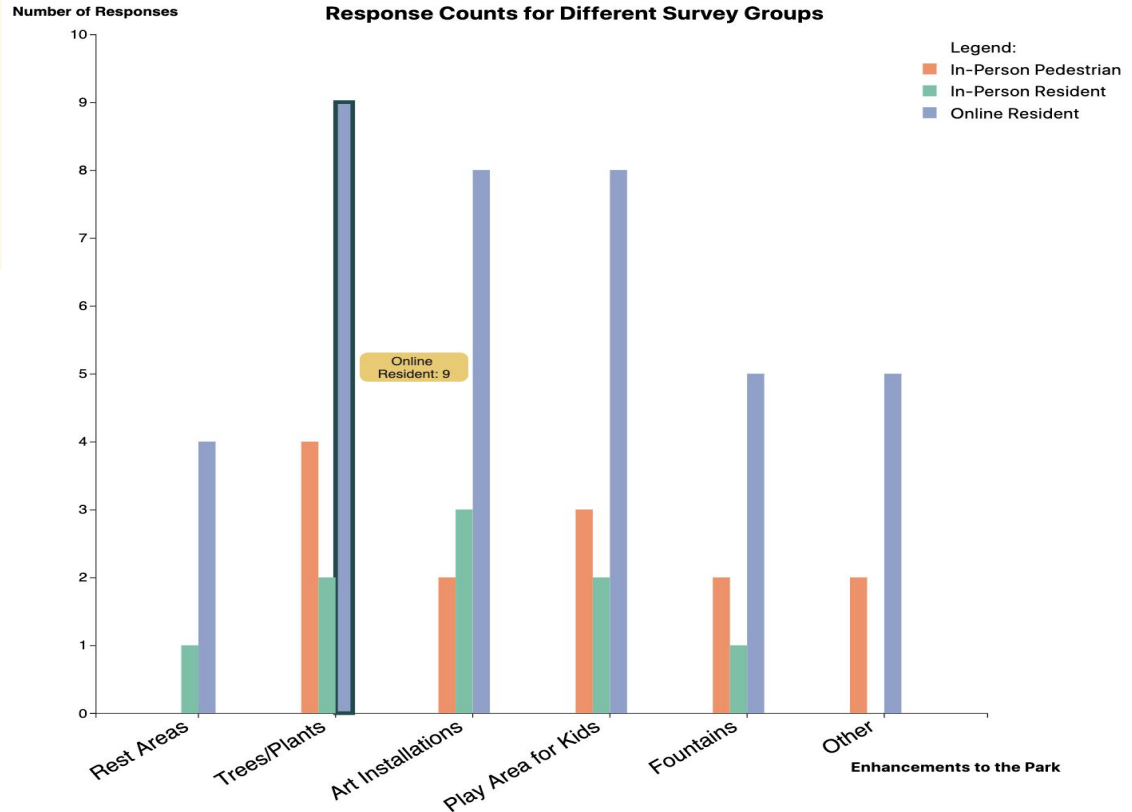
Grouped Bar Chart

Used color encoding to differentiate between the three different survey groups.

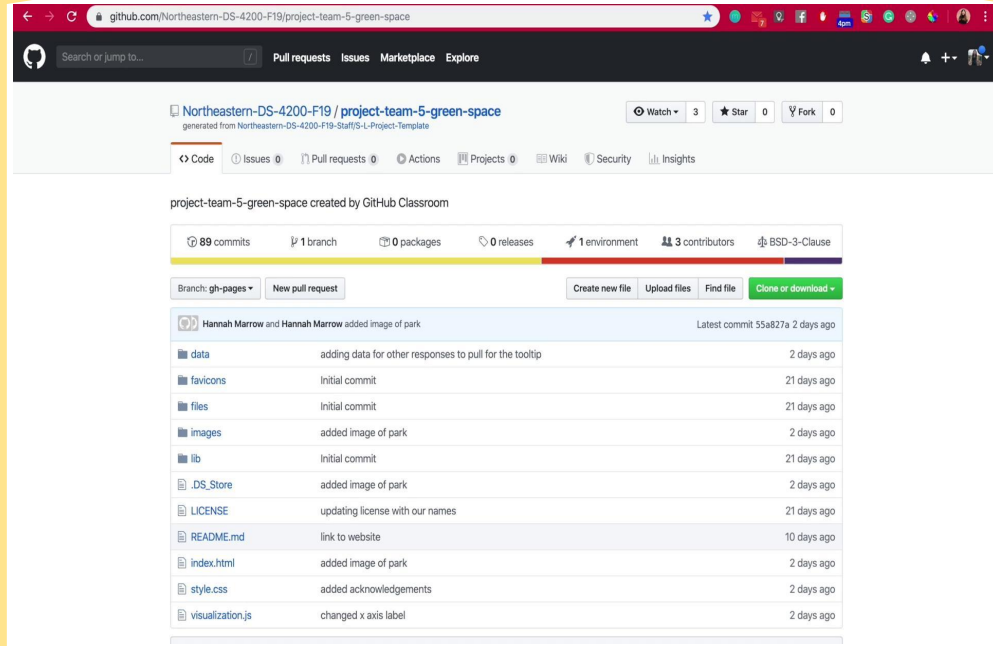
Colors have been tested for color blindness

Breakdown

Deeper insights to draw analysis - what kind of people responded in what way?



Website Demonstration



The screenshot shows a GitHub repository page for 'project-team-5-green-space' under the organization 'Northeastern-DS-4200-F19'. The repository was generated from a template. It features 89 commits, 1 branch, 0 packages, 0 releases, 1 environment, 3 contributors, and a BSD-3-Clause license. The commit history is displayed with the following details:

Commit	Description	Time
Hannah Marrow and Hannah Marrow	added image of park	Latest commit 55a827a 2 days ago
data	adding data for other responses to pull for the tooltip	2 days ago
favicons	Initial commit	21 days ago
files	Initial commit	21 days ago
images	added image of park	2 days ago
lib	Initial commit	21 days ago
.DS_Store	added image of park	2 days ago
LICENSE	updating license with our names	21 days ago
README.md	link to website	10 days ago
index.html	added image of park	2 days ago
style.css	added acknowledgements	2 days ago
visualization.js	changed x axis label	2 days ago



Conclusion



Data Insights



01

Define Target Population

Depending on the person's background, they have different needs.

- **Residents**
- **Pedestrians**



02

Focus on the Current Functionality

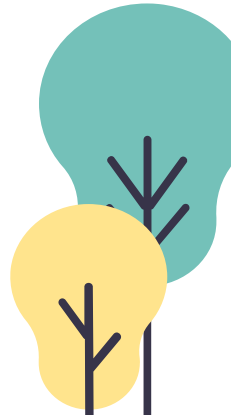
Instead of implementing all brand new features, focus on the things that already exist in the park, like trees and fountains, and improve these.



03

Most Desired Enhancements

The data shows the most frequent responses to our research question to be trees/plants, followed closely by art installations and a play area for kids.



Challenges



STARTED WITH NO DATA, NO APIS

Had to figure out what we wanted to ask, and go out and collect our own data.



LACK OF SURVEY RESPONSES

We did not have much data to work with after first online survey, so we had to go out in person and collect survey data on paper in order to create meaningful, robust visualizations



LEARNING D3

Difficult working in D3 Version 5.
Very few examples, especially for the isograph.

Future Improvements



CONNECT SURVEY DEMOGRAPHICS TO RESPONSES

Link gender/age info to responses to draw further conclusions



INDICATE PERCENTAGES ON GROUPED BAR

Different totals for each response type might be misleading



DO MORE DATA COLLECTION

More data is always better!

BE CLEAR ON WHAT SURVEY ANSWERS MEAN

(Drinking fountains vs decorative fountains. Plants OR trees.)

CREATE VISUALIZATIONS FOR EACH QUESTION WE ASKED

How often do you use the park? How would that change?



THANK YOU

Does anyone have any questions?

Contact us:

Sarah Chou: chou.s@husky.neu.edu

Megan Lau: lau.me@northeastern.edu

Hannah Marrow: marrow.h@husky.neu.edu

<https://github.com/Northeastern-DS-4200-F19/project-team-5-green-space>

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**.

Please keep this slide for attribution.

